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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,152	10/27/2000	Chisa Hayakawa	01165.0799	1720
22852	7590	09/27/2004	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 1300 I STREET, NW WASHINGTON, DC 20005			PIERCE, JEREMY R	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/674,152	Applicant(s) HAYAKAWA ET AL.	
	Examiner Jeremy R. Pierce	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on July 14, 2004 has been entered. Claims 3 and 7-10 have been cancelled. New claims 11-16 have been added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moretz et al. (U.S. Patent No. 5,269,720) in view of Mouri et al. (U.S. Patent No. 5,690,922).

Moretz et al. disclose a knitted composite fabric comprising a moisture transport fabric layer and a moisture dispersal fabric layer used in a brassiere (Abstract). Moretz et al. do not disclose adding a white pigment. However, white pigment, such as titanium oxide, is commonly added to fabric material. Mouri et al. disclose adding titanium oxide to fiber in an amount of 0.1 to 25% by weight in order to create a deodorizing effect (Abstract). Mouri et al. teach that such fibers find particular use in underclothing (column 15, line 58). It would have been obvious to one having ordinary skill in the art to add titanium oxide to the liquid transporting and dispersing fibers of the undergarment

of Moretz et al. in order to enable the fibers to have a deodorizing effect, as taught by Mouri et al. With regard to claim 13, Moretz et al. disclose adding stretch yarns into the fabric (column 3, line 52). With regard to claim 14, although Moretz et al. do not explicitly teach the claimed property limitations, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. water diffusible fibers) and in the similar production steps (i.e. formed into a composite fabric) used to produce the brassiere. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the apparent density, water-retention ratio, and diffusion area are all result effective variables that affect the ability of the fabric to hold and disperse liquid. It would have been obvious to one having ordinary skill in the art to optimize the composite fabric of Moretz et al. in order to obtain the desired density and water retention ratio of the fibers, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moretz et al. in view of Mouri et al. as applied to claim 3 above, and further in view of Unitika (JP 62-53438 with English Abstract Provided).

Moretz et al. do not provide W-shaped cross section fibers in the wicking layer, but do desire the fibers in that layer to have a high surface area in relation to volume (column 3, lines 19-20). The '438 Patent teaches W-shaped cross-section fibers, known for their high surface area, are used in composite fabrics to provide water

absorbing and transporting functions (Abstract). It would have been obvious to one having ordinary skill in the art to use W-shaped cross-section fibers in the wicking layer of Moretz et al., in order to provide a means to obtain the desired high surface area in relation to volume desired by Moretz et al.

Response to Arguments

5. Applicant's arguments filed July 14, 2004 have been fully considered but they are not persuasive.

6. Applicant argues that Moretz discloses a multi-layered fabric material having the same two layers as in Applicant's invention, but when the fabric is used to make an article of clothing, the layers are reversed. However, the recitation of the fabric being used as an article of clothing is a recitation of an intended use. The combination of Moretz with Mouri meets all structural claim limitations. Even when the fabric material is claimed as an article of clothing, a person could still wear the material disclosed by Moretz inside out, and the claim limitations are met.

7. Applicant argues that a person of ordinary skill in the art would not add the titanium oxide to the top, surface layer of Moretz, but rather the inner most layer in order to create the deodorizing effect. However, the Examiner believes that a person of ordinary skill in the art would add the titanium oxide composition to both layers of Moretz because the garment of Moretz is an undergarment, and both top and bottom layers would be prone to the malodorous effects of the human body. In order to

effectively neutralize these odors, one would subject the entire garment, including both inner and outer layers, to the treatment taught by Mouri.

8. Applicant argues that it would be practically impossible to produce micro-fine fibers containing any white pigment. However, this argument is not supported with any evidence and Applicant has not yet distinguished the configuration of the layers from Moretz.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571) 272-1479. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRP

JRP
September 22, 2004


ELIZABETH M. COLE
PRIMARY EXAMINER